

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Stenzel, et al

Serial No. 10/560,468

Group Art Unit: 1771

Filed: 11/07/2006

Examiner: H. Vo

For: CARRIER FOR AQUEOUS MEDIA

\$1.132 Declaration of Dr. Quan Huang

I, Quan Huang, declare:

1. I am a named inventor on the above captioned application.

2. My educational background is as follows:

University of Hamburg, Germany:
M.Sc. Macromolecular Chemistry, in 1997
Ph.D. Macromolecular Chemistry, in 2000

3. My work history is as follows:

2000-2002, GKSS Research Center, Germany,
Project leader Development of foamed
polymer membranes
2002-today, Membrana GmbH, Germany,
Team Leader Accurel Technology,
Development of porous polymer particles
and membranes

4. I have reviewed the Office Action dated February 13, 2008 in which claims 1, 3, 5, 9, 10, 12-14, 16, and 17 are rejected under 35 USC §102(b) or, in the alternative, under 35 USC §103(a) as obvious over Tabakslat et al. (US6,051,618).

5. I do not agree with the Examiner's characterization of Tabakslat et al.

6. Specifically, I disagree with the Examiner's statement about Tabakslat et al. at page 3, lines 3-6:

"The porous polyolefin particles [of Tabakslat et al.] contain surfactants in an amount of 1.4%

(0.63/45x100) by weight based on 100% by weight of the polyolefin particles (example 1)."

7. This conclusion is incorrect because it is at odds with basic physico-chemical principles as understood by a man of ordinary skill in the art.

8. Let me explain my assertion: Referring to Tabaksblat et al.'s Example 1 (starting at column 7), 45 g of LDPE is dissolved in 330 g of cyclohexane. Then, 0.38 g of a nucleating agent is added to the polyolefin solution. Then, the solution is dosed into 750 g of water to which 0.63 g of surfactant had been added. Thereafter, the resulting mixture is cooled while being stirred and gel particles are formed.

9. The skilled man would understand that the Tabaksblat et al.'s mixture of Example 1 is a 'homogenous' mixture, meaning that the components are uniformly dispersed throughout the mixture.

10. Thus, the proper calculation, based upon a homogenous mixture is $[0.63 \text{ g (surfactant)} / 45 \text{ g (LDPE)} + 330 \text{ g (cyclohexane)} + 0.38 \text{ g (nucleating agent)} + 750 \text{ g (water)} + 0.63 \text{ g (surfactant)}] \times 100 = 0.056\%$. This calculation is proper because it recognizes that the mixture is homogenous and that the surfactant is uniformly dispersed throughout the mixture, i.e. in the water phase as well as in the phase build by the droplets of the polyolefin solution, thereby resulting in a concentration of the surfactant in the polymer particles of 0.056%.

11. The Examiner's mistake is assuming that the surfactant added to the water, after forming the mixture (of LDPE, cyclohexane, nucleating agent, water, and surfactant) and after cooling and separating the polyolefin particles will only be associated with the LDPE. There is no basis for this conclusion.

12. Moreover, when one applies my logic to Tabaksblat et al.'s Comparative Example A (in Column 8), the surfactant concentration is 1.3% $(=[1.5/45+330+750+1.5] \times 100)$.

13. The surfactant concentration of Comparative Example A is within the claimed range, and Tabaksblat et al. state "no will-defined particles could be distinguished." Tabaksblat et al., column 8, lines 40-41.

14. In view of Tabaksblat et al.'s Comparative Example A, a skilled man could not conclude that my invention

claimed in the instant application was predictable because the particles were not formed.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: May 9, 2008

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A handwritten signature in black ink, appearing to be "Q. H. S.", written over a horizontal line.